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PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3827509>Available online at: <http://www.iajps.com>**Research Article****ANEMIA AMONG OUTDOOR PATIENTS****Dr. Muhammad Adeel Hassan, Dr. Muhammad Usman, Dr. Faizan Saeed**
Bahawal Victoria hospital (BVH) Bahawalpur**Article Received:** March 2020**Accepted:** April 2020**Published:** May 2020**Abstract:**

Anemia occurs when you have a decreased level of hemoglobin in your red blood cells (RBCs). Hemoglobin is the protein in your RBCs that is responsible for carrying oxygen to your tissues. Iron deficiency anemia is the most common type of anemia, and it occurs when your body doesn't have enough of the mineral iron. A total of 100 patients was included in the study. The mean age of the patients was 31.23 ± 2.23 years, mean age of the females was 29.43 ± 2.67 years and mean age of males was 34.67 ± 3.11 years. There were 50 (50%) females and 50 (50%) males in the study. The mean hemoglobin level of patients was 12.4 ± 2.12 gm/dl. The mean hemoglobin of females was 11.2 ± 1.22 gm/dl and mean hemoglobin of males was 13.6 ± 2.62 gm/dl.

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INTRODUCTION:

Anemia occurs when you have a decreased level of hemoglobin in your red blood cells (RBCs). Hemoglobin is the protein in your RBCs that is responsible for carrying oxygen to your tissues. Iron deficiency anemia is the most common type of anemia, and it occurs when your body doesn't have enough of the mineral iron. Your body needs iron to make hemoglobin. When there isn't enough iron in your blood stream, the rest of your body can't get the amount of oxygen it needs. Iron deficiency anemia develops when body stores of iron drop too low to support normal red blood cell (RBC) production. Inadequate dietary iron, impaired iron absorption, bleeding, or loss of body iron in the urine may be the cause. Iron equilibrium in the body normally is regulated carefully to ensure that sufficient iron is absorbed to compensate for body losses of iron [1]. Iron is vital for all living organisms because it is essential for multiple metabolic processes, including oxygen transport, DNA synthesis, and electron transport. Iron equilibrium in the body is regulated carefully to ensure that sufficient iron is absorbed in order to compensate for body losses of iron. Whereas body loss of iron quantitatively is as important as absorption in terms of maintaining iron equilibrium, it is a more passive process than absorption.

In healthy people, the body concentration of iron (approximately 60 parts per million [ppm]) is regulated carefully by absorptive cells in the

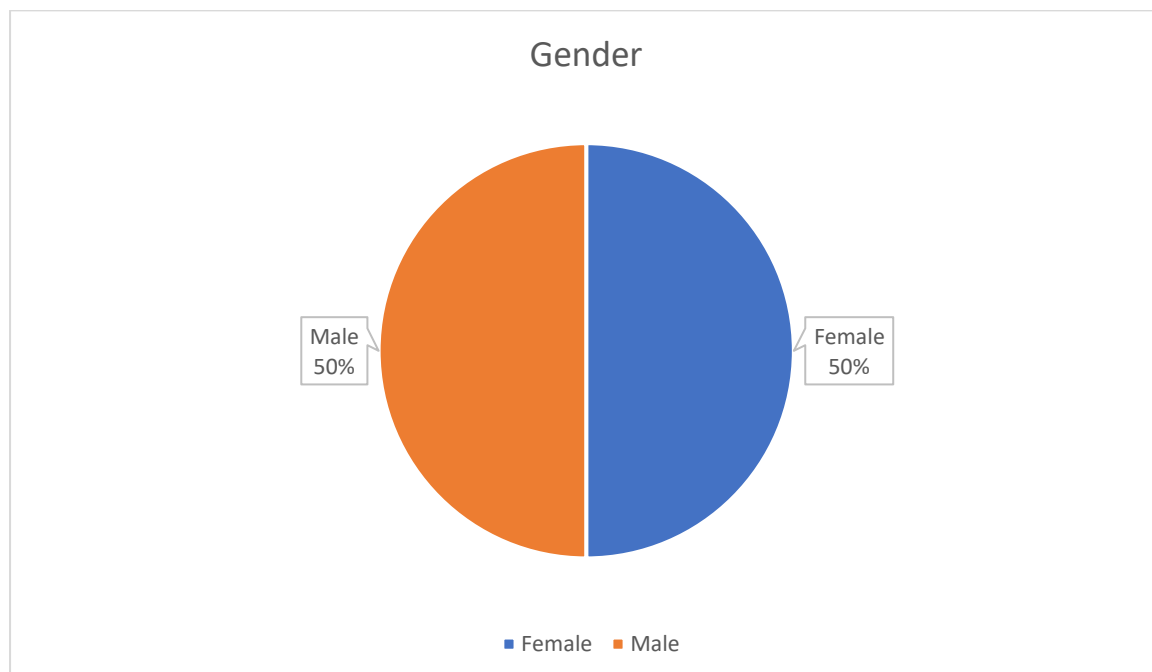
proximal small intestine, which alter iron absorption to match body losses of iron. Persistent errors in iron balance lead to either iron deficiency anemia or hemosiderosis. Both are disorders with potential adverse consequences. The normal hemoglobin range is 12.0 to 15.5 grams per deciliter for an adult woman and 13.5 to 17.5 grams per deciliter for an adult man [2,3].

MATERIAL AND METHODS:

This study was conducted in outdoor department. All the patients presenting in the medical outdoor were included in this study. Brief history, demographic data and Laboratory data was collected on a predefined proforma. All the data was entered and analyzed in SPSS Ver. 25.0. The qualitative variables were presented as frequency and percentages. The quantitative variables were presented as mean and standard deviation. Relevant statistical analysis was performed.

RESULTS:

A total of 100 patients was included in the study. The mean age of the patients was 31.23 ± 2.23 years, mean age of the females was 29.43 ± 2.67 years and mean age of males was 34.67 ± 3.11 years. There were 50 (50%) females and 50 (50%) males in the study. The mean hemoglobin level of patients was 12.4 ± 2.12 gm/dl. The mean hemoglobin of females was 11.2 ± 1.22 gm/dl and mean hemoglobin of males was 13.6 ± 2.62 gm/dl.



DISCUSSION:

A study of national primary care database for Italy, Belgium, Germany, and Spain determined that annual incidence rates of iron deficiency anemia ranged from 7.2 to 13.96 per 1,000 person-years. Higher rates were found in females, younger and older persons, patients with gastrointestinal diseases, pregnant women and women with a history of menometrorrhagia, and users of aspirin and/or antacids.

In countries where little meat is in the diet, iron deficiency anemia is 6-8 times more prevalent than in North America and Europe. This occurs despite consumption of a diet that contains an equivalent amount of total dietary iron; the reason is that heme iron is absorbed better from the diet than nonheme iron. In studies of children and adolescents from Sudan and Nepal, iron deficiency anemia was found in as many as two thirds of subjects.

In certain geographic areas, intestinal parasites, particularly hookworm, worsen the iron deficiency because of blood loss from the GI tract. Anemia is more profound among children and premenopausal women in these environs.

Healthy newborn infants have a total body iron of 250 mg (80 ppm), which is obtained from maternal sources. This decrease to approximately 60 ppm in the first 6 months of life, while the baby consumes an iron-deficient milk diet. Infants consuming cow milk have a greater incidence of iron deficiency because bovine milk has a higher concentration of calcium, which competes with iron for absorption. Subsequently, growing children must obtain approximately 0.5 mg more iron daily than is lost in order to maintain a normal body concentration of 60 ppm.

During adult life, equilibrium between body loss and gain is maintained. Children are more likely to develop iron deficiency anemia. In certain geographic areas, hookworm adds to the problem. Children are more likely to walk in soil without shoes and develop heavy infestations.

During childbearing years, women have a high incidence of iron deficiency anemia because of iron losses sustained with pregnancies and menses. Gastrointestinal neoplasms become increasingly more prevalent with each decade of life. They frequently present with GI bleeding that may remain occult for long intervals before it is detected. Usually, bleeding from neoplasms in other organs is not occult, prompting the patient to seek medical attention before developing severe iron depletion. Investigate the etiology of the iron deficiency anemia to evaluate for a neoplasm [3-5].

CONCLUSION:

Education regarding this issue should also be taken into consideration.

Conflicts of interest: There were no conflicts of interest.

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